Alberta's Post-secondary Education System: Developing the Blueprint for Change

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LEARNING

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1. Introduction

Alberta has a world class post-secondary system. It is important to ensure that this excellence is maintained and even surpassed. We need to ensure that we are positioned to meet the challenges of the future.

This paper has been prepared as a further step in a consultation process to develop a Blueprint for Change that will take the post-secondary system through the next decade. The Blueprint will identify key strategies to shape future directions and identify priorities for change.

In September 2001, a discussion paper was presented in draft format to selected stakeholders for initial feedback and to confirm the issues and trends that require consideration in the development of future directions. This document has been revised to reflect that feedback.

We are now requesting your input on specific questions and ideas concerning strategies and processes to improve the system. The input will set the agenda for focused discussions in the Spring of 2002 and guide future strategies for the post-secondary system.

In this paper, the key issues and pressures are presented in relation to three broad challenges currently influencing the development of the post-secondary system:

- roles and responsibilities;
- accessibility and affordability; and
- globalization, technology, and the knowledge-based economy.

Each issue is described briefly and key challenges and considerations are identified.

2. Preparing for the Future

Establishing a plan for the future must begin with a look at the past as well as the present. The accompanying document *Profile of Alberta's Adult Learning System: A Context for Discussion*, draws together information to provide a context for considering a future system.

The past decade has been a time of considerable change in Alberta's post-secondary education system. Significant financial restructuring took place followed by the introduction of a new funding model and targeted funding. There has been an increased emphasis on accountability and demonstrating results. The introduction of business planning focused the system on a clear set of goals, guided by a shared vision and mission. Substantial growth occurred in both teaching and research activity. The range of programs and services offered continued to expand, including new delivery technologies and methodologies. Support services to learners also underwent major changes, from improved electronic access to major enhancements in student financial aid. Throughout this period, change was guided and plans fine-tuned through extensive consultations with stakeholders and key players in the education system.

The new century has arrived bringing with it a host of new challenges – among them, globalization, rapid technological change, and a growing emphasis on knowledge development. We need to ensure our system can adapt and respond to these challenges, and also, seize the opportunities as they arise.

The future development of the post-secondary system must also consider the roles and responsibilities of it's various stakeholders. All stakeholders – students, parents, providers, instructors, government, and business and community – have a role to play in ensuring that the system continues to be successful.

Post-secondary education contributes to Alberta's well-being in ways that benefit individuals as well as society in general. It helps citizens to realize their individual potential, improve their standard of living, develop the economy, increase their capability for good citizenship, and improve their overall quality of life. We all benefit from a world-class post-secondary system and we all have a stake in its continued success.

3. Key Trends

There are profound forces that will influence and shape Alberta's post-secondary system and which will require a high level of responsiveness. The pace of change, importance of technology, the level of learning required to participate in the economy, globalization, the return on investment of learning, and the value of knowledge creation, all have an impact on the post-secondary system. The following key trends are currently influencing Alberta's post-secondary system:

- ***The return on investment in quality education has never been greater.*** Individuals, business as well as society in general benefit from investment in quality education. But at the same time, the cost of quality education has increased. Investment needs to reflect the return to the individual, businesses and society.

- ***The number of learners is growing.*** The post-secondary system faces enrolment pressures fuelled by an increase in the number of younger learners. At the same time, a greater number of mature Albertans will be seeking continuing education and training.

- ***The diversity of learners is increasing.*** All Albertans deserve access to learning so they can reach their full potential. The post-secondary system is being challenged to accommodate a more diverse range of learners, including those who are disadvantaged.

- ***A culture of lifelong learning is emerging.*** Barriers and distinctions between work and learning are breaking down. Flexibility is a key feature of a new learning environment. Today's learners are seeking a broader range of program and delivery options as they change careers, organizations restructure, and business cycles shift.

- ***Technology in learning.*** Advances in communications technology have created the potential to significantly enhance accessibility to post-secondary education. The enhanced use of technology in learning has allowed for a more flexible approach to learning including the ability to bridge limitations posed by geography and time. The development of the SUPERNET in Alberta allows for significant opportunities.

- ***Globalization and the knowledge-based economy are changing the way the system operates.*** Globalization has created greater competition. It has increased economic interdependencies among nations and increased the pace of change. Post-secondary institutions support the development of a knowledge-based economy and ensure the relevance of programs. Institutions are faced with increased competition from outside the province and beyond.

- ***Skill shortages.*** With aging populations and low fertility rates, industrialized countries may face labour market shortages within 20 years. A key challenge for Alberta given its rapidly growing economy will be to deal with skill shortages across a number of key areas. Over the next five years demand will be particularly strong for graduates in computing and associated subject areas, business management, tourism, nursing, industrial and electronic engineering, information technology and apprenticeship trades.

- ***There are great demands on human, financial and physical resources.*** Across Canada, an aging instructional workforce has created competition among post-secondary institutions to attract and retain staff. Additionally, it is necessary to maintain quality facilities and equipment and to keep pace with technological change. Institutions have become more reliant on student tuition fees and non-government revenue sources to offset rising costs of delivery. Students, in turn, are calling for greater controls on tuition fee increases.

4. Future Challenges

The key trends identified in the previous section are substantial for the post-secondary system. It is important to ensure that our system is aligned appropriately to respond to these challenges. It is necessary to ensure that there is a clear understanding of future roles and responsibilities, and that objectives concerning accessibility and affordability are balanced. It is also necessary to ensure that we can respond to the opportunities and challenges brought on by technological change and globalization.

4.1 Roles and Responsibilities

Alberta's post-secondary system provides a comprehensive range of credit and non-credit learning opportunities at public and private institutions throughout the province. Institutions are unique in the range of learning opportunities provided and the communities served. The challenge faced here is ensuring that the system operates as a system – an interdependent group of providers forming a unified whole.

There are 23 public board-governed institutions operating under various acts of the Legislative Assembly, including four universities, 16 colleges, two technical institutes, and the Banff Centre. These institutions offer a broad range of skills development, certificate, diploma, applied degree, degree, and continuing education programs. The universities also conduct the majority of research within the system. Credit programs are approved under policies administered by Alberta Learning. Learning provides operating grants to support delivery of credit programs, and other ministries provide support for infrastructure, research and specific projects. The institutions also provide additional services and generate revenue from tuition and other student fees, non-credit and off-campus credit programs, the operation of ancillary services (such as parking and food services), sponsored research funding from provincial and federal agencies and private industry, as well as investments and donations.

Currently, seven resident private colleges in Alberta have been authorized to offer degrees in specific programs, such as arts, science and education. The first four institutions to obtain this authorization receive operating grants from Alberta Learning, based on an historical agreement. Alberta has other resident private colleges that offer non-regulated programs. Some of these colleges are affiliated with other Alberta post-secondary institutions, colleges in the United States, and Canadian or American Bible college/theological schools or

associations. The provincial government does not provide operating grants to these institutions.

Additionally, there are more than 150 private institutions offering programs that respond to current labour market demands by preparing students for employment in a wide variety of occupations. In general, programs are specific to a vocation and less than one year in duration. Examples include hairstyling, acupuncture, commercial truck driving, health care, and information technology. In Alberta, vocational training programs offered by private institutions are licensed under the *Private Vocational Schools Act*. Private vocational school licensing is program and site specific. Under the legislation, owners of private institutions offering licensed programs pay application and licensing fees, post security to protect the tuition paid by students, and report annually on graduation and job placement for each student in each licensed program. Private vocational schools do not receive direct funding from the provincial government.

4.1.1 Role of the System and Ministry

Recently, there has been much emphasis placed on the role the post-secondary system plays in maintaining economic competitiveness. It has been acknowledged that the ability of a society to adjust to change, improve productivity and capitalize on technological innovation depends largely on the knowledge and skills of its adult population. Improving the stock of knowledge and skills available to the economy through participation and investment in post-secondary education has become an issue of considerable strategic importance. A society with a high level of participation in higher education is in a better position to compete on both a national and international scale.

However, the benefits of higher education extend beyond positive economic outcomes. The benefits also affect quality of life, public health, crime, the environment, parenting, and political and community participation. The recent report on the Premier's Advisory Council on Health indicates that education, income and lifestyles, have a strong influence on health system outcomes.

At a strategic level, the Ministry's role is to provide the necessary leadership to facilitate the partnerships and to work with stakeholders to *optimize human potential*, as stated in it's business plan. However, there are a number of considerations relating to the role of the Ministry within a future system. Within a context of lifelong learning and more flexible learning opportunities, it has been suggested that the Ministry

will need to play a key role in terms of articulation, transferability and portability of credentials.

Key Challenges and Considerations

Within a system of increased opportunities and providers, including out-of-province providers offering programs through on-line learning, there will be a need to ensure learners have the tools to make informed choices regarding education opportunities and that learners and public resources are protected.

Learners need access to a range of relevant and high quality learning opportunities. The effective use of technology will change institutions' roles as they will not need to provide the resources to both develop and deliver programs on site. With developments in technology, it is possible that an institution or collection of institutions can take primary responsibility for curriculum development and establish centers of excellence, while other institutions, for example, could act as brokers to facilitate access through on-line delivery.

Most would agree that our system should be characterized by the following: provides access to high quality learning opportunities; responsive to the needs of learners; responsive to the needs of business; is adaptable; learner centered; is affordable; is cost effective; and provides for portability. It is important to consider to what extent our system is actually characterized by these attributes.

4.1.2 Role of Public Institutions

To foster a strategic and responsive approach to the development of the post-secondary system, Alberta Learning approves the mandates of public institutions as well as their credit program offerings. Mandate statements identify the general direction of the institution with regard to programs offered and, at times, client groups served. When Alberta Learning reviews individual credit program proposals, it considers the institution's mandate, demand for the program, labour market needs, tuition fees and finance arrangements. Institutions are also influenced by their individual mission and vision statements, which are not approved by Alberta Learning.

An autonomous Board of Governors governs each of Alberta's public post-secondary institutions. Boards are comprised of the institution president, and internal and external officers appointed by the Minister of Learning and the Lieutenant Governor in Council. Generally, each board provides strategic direction for the institution, establishes

program offerings, and approves admission requirements. Boards ensure that the needs of the learners it serves are met. Since a majority of an institution's learners are from the immediate proximity of the institution, boards also promote the well-being of surrounding communities.

Key Challenges and Considerations

The mandate approval process was established as a mechanism to allow for effective and responsive system development. However, it has been observed that mission and vision statements rather than ministerial mandates increasingly are driving institutions. Allowing each institution to shape their own direction, including the range and location of services may not take the system in the desired direction. The challenge becomes one of achieving the appropriate balance between competition and collaboration while ensuring our system goals of accessibility and responsiveness are achieved. A key challenge will be in determining the appropriate balance of regulatory control and board-governed autonomy.

4.1.3 Role of Faculty

Alberta's faculty play an integral role within the post-secondary system through their instruction, research and community service activities. It is faculty creativity that allows for the development of new curricula and programs to respond to emerging needs. Through instruction, learners are able to acquire new knowledge and skills relevant to their own needs and to the needs of society.

Through research activities, faculty allow for the creation and application of new knowledge and technologies essential to a knowledge-based economy. Alberta's faculty perform the bulk of research and development activity within the province.

Key Challenges and Considerations

An institution's ability to respond to the needs of students, society and a global economy is dependent upon their faculty. Attracting and retaining flexible and responsive faculty will become an issue of growing importance over the next decade, as institutions will need to fill numerous faculty positions to cope with the projected retirement of large numbers of faculty and to respond to changes in learner and industry demand.

4.1.4 Role of the Learner

The learner is at the centre of the Alberta post-secondary system. Through their acquired knowledge and skills they not only contribute toward their own development and well-being they contribute toward Alberta's economic competitiveness and well-being furthering the overall development and betterment of society. The Alberta learner will play an increasingly important role ensuring success of the post-secondary system and of Alberta as a knowledge-based society.

Within the post-secondary system, Alberta's graduate students play an integral role contributing toward the research enterprise in the province as well as instructional support within the universities.

Key Challenges and Considerations

Increasingly, learners will have greater responsibility to identify their learning requirements as well as program needs within the system. With technology, learners have the opportunity to access a wider range of opportunities, including those provided by institutions outside the province. Learners have a responsibility to make informed choices regarding their program of studies including the quality of their programs and the demand for graduates.

4.1.5 Provision of Degree, Diploma and Certificate Opportunities

University transfer programs help minimize geographic barriers for rural students and reduce the overall costs of obtaining a university education as well as subsequent debt loads. Within the large urban communities the provision of university transfer programs allows for a focus primarily on teaching. Currently, seven public colleges in Alberta provide university transfer programs, with the majority of transfer activity within the two largest public colleges in Edmonton and Calgary.

Compared to other provinces, Alberta's post-secondary system focuses more on providing opportunities to obtain diplomas, certificates, and applied degrees than degrees. While a high proportion of Alberta's population possesses a university degree, inter-provincial and international migration have also played a role. Alberta is below the Canadian average in terms of the number of university graduates it produces.

Over the past decade, public colleges have been seeking approval to grant degrees. Brokerage arrangements have been established to help students in rural areas access and complete degree programs on rural campuses. For example, universities now provide nursing baccalaureate programs on a number of rural college campuses.

Increasingly, public universities are offering or are considering expanding the range of certificate and diploma activity they now provide, which will potentially compete directly with programs provided within the college sector. Similarly, a number of Private University Colleges, who now have authority to grant baccalaureate degrees in specific program areas, have requested that they be allowed to offer graduate studies.

Since 1994-95, institutions focusing on upgrading programs have seen significant enrolment decreases. At the same time, enrolment in information and communications technology programs has more than doubled. Only 50 years ago, a considerable proportion of Alberta's population was involved in agriculture and related activities, compared to a smaller number today. Since 1955, Alberta's farm population has dropped from 40% to less than 7% of the total population. As the needs of society and the economy evolve over time, the nature of programming will continue to change.

Key Challenges and Considerations

It has been suggested that the continued expansion in the range and level of programs offered across the system promotes competition rather than collaboration. Institutions have indicated a need for Alberta Learning to provide greater incentives to establish collaborative arrangements.

From a system perspective, it is not desirable for more and more providers to offer the same program opportunity if there is insufficient demand. This approach simply dilutes the system's capacity to achieve excellence.

4.1.6 Regional Access to Learning Opportunities

Demographic forces and shifts in program demand have had a significant impact on Alberta's post-secondary system. The proportion of Canada's population living in rural and small town areas declined from 34% in 1976 to 22% in 1996. Between 1996 and 2000, population growth across Canada has been highest in the predominantly urban regions of the country. At 3%, Calgary had the highest average

annual growth rate among all census metropolitan areas in Canada, and Edmonton was fifth with an average annual growth rate of 1.6%.

By and large, growth in credit enrolment since 1994-95 has reflected the population growth pattern, with the highest rates of growth occurring at institutions in Alberta's larger urban centres. Calgary led the province with its institutions accounting for over 45% of total enrolment growth, while Edmonton was second with an increase of approximately 25%. Overall, Alberta's three largest urban centers – Calgary, Edmonton, and Lethbridge – accounted for more than 80% of total enrolment growth, which is greater than their proportion (70%) of the province's total population.

An exception to the general growth pattern was the large increase in enrolment at Athabasca University, which accounted for 15% of total growth. Athabasca University is mandated to provide programs through distance education. It is important to consider that a majority of the enrolment growth at Athabasca University was fueled by learners outside the province.

Key Challenges and Considerations

Alberta's population is projected to continue to grow at rates that exceed the national average, with substantial growth continuing to occur in the larger urban centers. The echo boom population, born between 1980 and 1995, has only recently begun to complete high school and enter the post-secondary system. The average annual increase is estimated to be between 2.69% and 3.45%. As the urban centres continue to grow, rural institutions will be challenged to ensure that access in rural areas is not jeopardized. In contrast, urban institutions will face enrolment pressures. The geographic distribution of post-secondary capacity must be aligned with this trend.

In June 1998, the Alberta government reported the results of its study assessing the physical capacity of public post-secondary institutions in the province. The study found that the system as a whole was near its enrolment accommodation capability, with the capacity to accommodate enrolment increases existing primarily in rural institutions where lower growth was forecasted.

4.1.7 Role of Private Providers

There is a long-standing tradition in Canada of private organizations delivering academic programs, including degree programs. In Alberta, the private landscape is diverse, including degree-granting private

colleges (regulated under authority of the *Universities Act*), private vocational schools (regulated under authority of the *Private Vocational Schools Act*), and private institutions offering non-regulated programs.

Based on an historical agreement, the first four resident private colleges to obtain degree-granting status receive operating grants from the Alberta government. These institutions can also submit program proposals through the Access Fund. Recently, three additional resident private colleges have received accreditation to offer degree programs. These providers do not receive operating grants from the Alberta government. However, all accredited programs are eligible for student financial assistance.

Alberta also has more than 150 private vocational schools providing vocational training programs that are generally one year or less in duration. While these schools receive no direct funding from the Alberta government, designated programs are eligible for student financial assistance.

Alberta Learning does not regulate tuition fees charged by private institutions because their capital assets are privately owned and generally they are not supported through provincial operating grants. In contrast, public institutions are restricted in the tuition they can charge because they receive both provincial operating grants and provincial funds for facilities, equipment and other physical assets, which are technically owned by the Crown.

Key Challenges and Considerations

There has been considerable growth in the number of private institutions offering post-secondary programs in Canada and North America. The role of private providers in a largely public system must be clear and support the vision for post-secondary education in the province.

4.1.8 Distinction Between Credit and Non-credit Programs

Credit programs generally lead to a parchment, such as a certificate, diploma or degree, authorized and signed by the awarding institution's Board of Governors. Credit programs are approved by the Minister and subject to the Tuition Fee Policy. Institutions are required to report information on credit programming to ensure that tuition fee revenues do not exceed 30% of net operating expenditures.

Alberta Learning provides funding for credit programs either directly or indirectly depending upon the approval process. Credit programs approved through the Access Fund are funded directly. However, many credit programs also are approved outside the Access Fund. Additional operating funds for these programs are not requested or provided. Delivery costs are accommodated within existing operating resources, such as tuition fees and base operations grants.

Traditionally, non-credit programs have been viewed as those offered outside normal delivery hours, such as evening courses offered through continuing education departments. Generally, these programs are of short duration and taken for personal interest. Although non-credit programs can also lead to a certificate or diploma, they are not authorized and signed by the institution's Board of Governors. Non-credit programs are not approved by the Minister and are not subject to the Tuition Fee Policy. Consequently, institutions usually charge tuition fees that cover the full costs of program delivery.

Key Challenges and Considerations

The difference between credit and non-credit programs has become less evident and driven more by administrative considerations than academic outcomes. The determination as to whether a program is credit or non-credit may be left to the discretion of the institution in some circumstances. The decision may relate more to how the institution intends for the program to be financed or subject to the Tuition Fee Policy. This has resulted in a lack of consistency in credit and non-credit programs between institutions. This lack of clarity can affect transferability and create a barrier to achieving individual academic goals.

Problems of public perception can occur when institutions offer credit-like programs under the non-credit framework. Learners are also concerned by the lack of official recognition of their learning and uncertainty around transferability. A new model of classification may be required as the system moves forward within the spirit and intent of the Campus Alberta concept.

4.1.9 Role of Research

University research is a vital part of Alberta's publicly funded post-secondary system. Research activity can range from basic discovery-driven research to applied research, technology transfer and commercialization. University research contributes significantly to the social and economic development of the province and is an integral part

of the university educational experience. While it is recognized that research is also undertaken in the college and technical institute sectors, often on a contract basis for industry, only the universities are legislated and funded to carry out research as an essential part of their mandate. This policy direction supports a philosophical role that the primary focus of colleges and technical institutions is to support excellence on learning outcomes.

Alberta Learning supports the research function of universities through base operations grants and envelope funding. These funds provide for overall research infrastructure, which includes both intellectual and technology infrastructure. Intellectual infrastructure refers to human resources such as faculty and graduate students whereas technology infrastructure refers to physical resources such as facilities, laboratories, equipment, and computing and telecommunications infrastructure. Total research support ranges from 5% to 30% of a university's base operations grant depending on the research intensity of the institution.

Alberta's universities also perform a substantial portion of the sponsored research conducted within the province. Sponsored research refers to specific research initiatives supported by external sponsors, including federal research granting councils, provincial government sources, as well as non-profit and industry sources. Sponsored research is project specific, with funding awarded based on the merits of a project as determined by experts in the field. A significant proportion of sponsored research revenue awarded to Alberta's universities comes from provincial government sources.

Key Challenges and Considerations

With the rapid acceleration in the creation of new knowledge, Alberta's post-secondary system will be pressed to keep pace. Creating the intellectual infrastructure necessary to support research, clarifying the role of partners in the research function, and ensuring the appropriate balance between research and teaching will challenge the system over the next several years.

Between 1994-95 and 1999-00, total sponsored research revenue at Alberta's universities grew from $160.7 million to $300 million, an increase of 86.7%. Since the indirect costs of sponsored research are not supported, the success of Alberta's universities in generating sponsored research activity has put pressure on operating budgets.

4.1.10 Integration of Learning Systems

The overall success of the learning system in Alberta depends upon the contribution of school boards and post-secondary institutions. Interrelationships are important to the success of each specific system as well as the overall system of learning. For instance, the post-secondary system develops teachers for the basic system. Schools prepare youth for adult learning opportunities. Relationships at local levels can enhance accessibility and affordability. Continuing education and training activities provided by basic and adult learning providers support the development of lifelong learning. The two systems must work together and complement each other to ensure effective system planning and use of public resources.

Teachers and parents play a key role in developing and preparing learners for post-secondary education and establishing a culture of lifelong learning.

Key Challenges and Considerations

Completing high school is a critical component in making the transition to the higher education and training needed to be successful in a knowledge-based society. Although 71% of Alberta's students complete high school within six years of entering grade nine, the rate is below the Canadian average.

Frequently socio-economic status (SES)and related factors are among the causes of early school leaving.

4.2 Accessibility and Affordability

Alberta Learning's business plan frames the goals of accessibility and affordability in the post-secondary system and aims to provide high-quality learning opportunities accessible to all Albertans. It wants to ensure that financial need is not a barrier and ensure physical capacity of the post-secondary system meets learner demand.

A further goal is to ensure learners are well prepared for lifelong learning, work and citizenship. As a result, learners successfully find and maintain employment and employers are satisfied with the knowledge, skills and attitudes of employees.

A number of considerations impact these goals:

- Jobs in today's global and knowledge-based economy require higher skills and more education than ever before.
- Alberta competes in the international marketplace to attract and retain the best and the brightest to its workforce.
- Alberta's rate of population growth, primarily fueled by inter-provincial and international migration, has declined.
- Industry training needs require a high level of participation from high school graduates and from the existing adult workforce.
- Post-secondary educational opportunities need to reflect a diverse student population whose circumstances and ages differ.
- The post-secondary system needs to ensure opportunities for participation from learners who are disadvantaged socio-economically.
- The benefits of post-secondary education should be realized not just by individuals but also by business and society in general.

4.2.1 Investment in the Post-secondary System

The funding of post-secondary education in Alberta is a responsibility shared by students, their families, and society. Students make a direct contribution through the payment of tuition fees. The government regulates these fees through the Tuition Fee Policy.

Introduced in 1990-91 and amended in 1994-95, the objective of the Tuition Fee Policy is to ensure that students make a contribution to the costs of their post-secondary education that is reasonable considering the benefits they receive. Extensive public consultations were conducted in 1990 and 1994 to determine what Albertans considered a reasonable contribution on the part of students. Based on these consultations, it was determined that students should contribute up to 30% of the cost of their education. Under the amended Tuition Fee Policy, the revenue from tuition fees at public institutions was allowed to rise to 30% of net operating expenditures by the year 2000.

Generally, higher levels of educational attainment are associated with improved labour market outcomes for individuals. With each level of education attained, individuals experience higher levels of employment. On average, while high school graduates earn at least 25% more than those with an elementary education, university graduation raises earnings by more than 100%. It has been estimated that for each additional year of education, an individual's annual earnings increases by approximately 8.3%.

Although students now contribute proportionately more toward the costs of their post-secondary education than they did in 1994-95, societal contributions have also increased.

Alberta's student financial assistance program has responded to rising student costs by increasing student loan levels as well as the number and value of non-repayable forms of financial assistance. Alberta's student loan program also is based on the shared-cost principle. Loans are awarded on the basis of student need, parental contributions are factored into eligibility calculations, and society contributes through loan forgiveness and servicing costs.

In addition to tuition fees, students pay a variety of other fees. Universal fees, such as those for access to library facilities are subject to the Tuition Fee Policy. Non-universal fees, such as those for course specific materials and supplies, are not subject to the Tuition Fee Policy. With the development of on-line learning and increased use of computer technology, many institutions have introduced student fees for computer use and internet access. Additionally, some programs require students to have a laptop computer for in-class use. Student financial assistance considers computer-use fees in loan awards, but does not provide assistance for the purchase of computers for post-secondary studies.

Key Challenges and Considerations

To ensure that Alberta's post-secondary system remains accessible and affordable, student financial assistance programs as well as the amount that students and their families contribute towards the cost of post secondary education needs to be reevaluated.

4.2.2 Participation Rates

Although youth comprise the single largest age group of students enrolled in post-secondary institutions, the general trend throughout the 1990s has been a flattening of full-time youth participation in university and college education, both in Alberta and across Canada. In Alberta, the proportion of youth aged 18 to 24 attending university full-time dropped slightly, from 18.7% in 1994-95 to 18.0% in 1998-99. At the same time, the proportion of Albertans aged 18 to 21 enrolled full-time in college rose only marginally, from 18.3% in 1994-95 to 19.1% in 1998-99.

Alberta Learning's recent post-secondary accessibility survey showed that the socioeconomic background of a learner has a strong influence

on participation rates. The study also showed that there are a number of perceptions among students regarding the cost of education that are not accurate. Many students overestimate the costs of their education.

At 6.1% of the total population, Alberta's Aboriginal population is much higher than the Canadian average of 3.8%. In Alberta and across Canada, the educational attainment of Aboriginal people is well below that of the non-aboriginal population.

Key Challenges and Considerations

In today's emerging knowledge societies, the capacity of labour markets, organizations, and individuals to adjust to change, improve productivity, and capitalize on technological innovation depends largely on the knowledge and skills of the adult population. Improving the stock of knowledge and skills available through participation in post-secondary education has become an issue of considerable strategic importance. It is important to consider strategies to enhance the participation rate among youth generally, and learners from disadvantaged backgrounds.

4.3 Globalization, Technology and the Knowledge-based Economy

Globalization, technology and the development of a knowledge-based economy are profoundly affecting Alberta's post-secondary system. Competition is intensifying and program demands and modes of delivery are changing.

Advancements in information and communications technology have led to innovative delivery methods that have made post-secondary programs more accessible than ever before. The development of online learning allows Albertans to access learning opportunities with few barriers to time and location, through Alberta-based institutions as well as providers based in other provinces and countries.

While the range of learning opportunities for Albertans has expanded, the province's post-secondary institutions increasingly are exposed to competition from a broad range of out-of-province and international learning providers. This global environment has intensified competition for students and faculty, and has created demand for programs that can be applied globally as well as domestically. In *People and Prosperity*, the Alberta government has noted that to remain competitive Albertans must be prepared to participate in a global environment:

> *Albertans need to be, and want to be, recognized nationally and internationally for the excellence of their knowledge, skills, attitudes and experience. Our goal is to ensure superior credentials and labour market mobility conditions so that Albertans may compete for opportunities arising from global trade and expanding domestic markets.*

Alberta's success in remaining globally competitive depends upon developing and maintaining the infrastructure necessary to support a knowledge-based economy. Key components of this infrastructure include a highly-skilled and productive workforce and the creation and application of new knowledge and technologies. Alberta's post-secondary system plays a critical role in support of these components.

Key Challenges and Considerations

Alberta's post-secondary system must be positioned to compete successfully in the new economy. This means that Albertans have access to learning programs and services that meet or exceed global standards. Quality will have to be assured for both made-in-Alberta and non-resident programs.

Online learning has increased accessibility and expanded the range of learning opportunities available to Albertans. It has also increased the potential for exposure to poor quality programming. Concerns have been raised regarding the balance between the government's responsibility for ensuring that Albertans have access to high quality programs and the learner's responsibility for making informed choices.

Provincial operating grants are provided to support post-secondary infrastructure within the province. It has been observed that post-secondary institutions increasingly are involved in providing learning opportunities outside the province. The development of online learning has made the definition of out-of-province activity problematic. Many have pointed out that public resources need to be appropriately invested.

Alberta's tuition fee policy requires public post-secondary institutions to charge the same fee to all residents of Canada. It also requires institutions to levy a surcharge of 100% to all foreign students. It has been suggested that these requirements are not appropriate in a global environment.

Generally, post-secondary institutions are responding to globalization and technology on an individual basis. It has been suggested that a coordinated and collaborative strategic response is needed.

5. Developing the Blueprint for Change: Key Questions

The issues and considerations outlined in this document clearly indicate the need for dialogue and action if Alberta's post-secondary system is to adapt and respond successfully. Our responses must be proactive if we are to address the challenges and seize the opportunities presented. The future must be invented, not merely predicted.

A number of key questions emerge in considering the appropriate strategies to move the system forward. The answers to these questions will help frame the blueprint for the future. More specifically, stakeholders' responses to the following questions are being sought:

1. An important aspect of establishing a blueprint for a future post-secondary system in Alberta is in understanding and describing what a successful future system looks like. ***What are the most important attributes of a successful post-secondary system?***

2. The Ministry plays a key role within the system along many dimensions: provision of information concerning programs; ensuring accountability; communicating system directions; ensuring an appropriate range and mix of programs and services; creating partnerships; and resource allocation. ***What specific advice can you provide concerning the Ministry's future role and actions it can take to ensure the development of a successful system?***

3. The number and diversity of learners is increasing. This is being driven by demographics and the emergence of a lifelong learning culture. ***What changes must the system undergo if it is to successfully respond to these new demands for access?***

4. The success of Alberta's system is dependent upon all stakeholders, including institutions, faculty, learners, and society in general. Alberta's institutions play an important role both in terms of their roles as autonomous institutions and as members of a larger system. ***What advice can you provide concerning the future roles of institutions and sectors, and the roles of other stakeholders to promote a successful system?***

5. One of the key principles underlying accessibility and affordability strategies is that there is a shared contribution toward the cost of post-secondary education, from society and from the learner. The learner as well as society in general benefit from the provision of a high quality post-secondary system. ***What advice can you provide concerning the level of contribution provided by the learner and society?***

6. Advances in technology are changing the shape of the learning environment and allowing for increases in accessibility. ***What advice can you give concerning the most effective ways to harness the full potential of technology in the learning process?***

7. Globalization and the continued development of a knowledge-based economy will have an impact on the future of the system. These developments impact the pace of change, programs, and the level of competition for talent. ***What specific measures can be taken to ensure that the Alberta system can respond successfully within an increasingly global and knowledge-based economy?***